WHAT IS CLAIMED IS:

1. A belt conveying mechanism for an ink-jet recording apparatus, comprising:

a plurality of rollers;

a conveyor belt for conveying a record medium on a surface of the converor belt, the conveyor belt wrapped around the plurality of rollers;

a recessed portion formed in the surface of the conveyor belt;

an ink retaining portion for retaining ink, the ink retaining portion disposed upstream in a traveling direction of the conveyor belt and ranging from a bottom surface of the recessed portion to a rear surface of the conveyor belt; and

an ink absorber for absorbing the ink retained by the ink retaining portion from the rear surface of the conveyor belt by contacting with the ink retaining portion, the ink absorber disposed at the rear surface of the conveyor belt.

2. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein portions of the bottom surface of the recessed portion excluding the ink retaining portion are water-repellent, and wherein the ink retaining portion is non-water-repellent.

3. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein the recessed portion has a "V" shape with its apex upstream in the traveling direction when viewed from the surface of the conveyor belt, and wherein the ink retaining portion is disposed at the apex.

4. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein the rollers are cut out at portions through which the ink retaining portion passes at the time when the conveyor belt is traveling.

5. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, further comprising a guide member for supporting the conveyor belt, the guide member disposed in such a manner as to come into contact with at least part of the rear surface of the conveyor belt excluding portions through which the ink retaining portion passes at the time when the conveyor belt is traveling.

6. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein the ink retaining portion projects from the rear surface of the conveyor belt, and wherein the ink absorber is

disposed in such a manner as to come into contact with only the projecting portion of the ink retaining portion.

7. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein the ink absorber selectively assumes a position at which it is brought into contact with the rear surface of the conveyor belt or a position at which it is not brought into contact with the rear surface of the conveyor belt.

8. The belt conveying mechanism for an ink-jet recording apparatus according to claim 1, wherein the ink absorber is made of felt.

9. A belt conveying mechanism for an ink-jet recording apparatus, comprising:

a plurality of rollers;

a conveyor belt for conveying a record medium on a surface of the converor belt, the conveyor belt wrapped around the plurality of rollers;

a recessed portion formed in the surface of the conveyor belt;

an ink retaining portion for retaining ink, the ink retaining portion disposed upstream in the traveling direction of the conveyor belt and ranging from a bottom surface of the recessed portion to a rear surface of the conveyor belt;

an ink absorber for absorbing the ink retained by the ink retaining portion from the rear surface of the conveyor belt by contacting with the ink retaining portion, the ink absorber disposed at the rear surface of the conveyor belt;

a sensor for detecting a position of the ink retaining portion formed in the conveyor belt; and

a drive mechanism that moves the ink absorber based on the position of the ink retaining portion detected by the sensor and on the traveling speed of the conveyor belt such that, when the ink retaining portion is at a position corresponding to the ink absorber, the ink retaining portion is brought into contact with the rear surface of the conveyor belt, and that when the ink retaining portion is at a position not corresponding to the ink absorber, the ink retaining portion is apart from the rear surface of the conveyor belt.

10. An ink-jet recording apparatus, comprising:

the belt conveying mechanism according to claim 1; and

an ink-jet head for ejecting ink onto the record medium being conveyed by the conveyor belt of the belt conveyor.

11. A belt conveying mechanism for an ink-jet recording apparatus, comprising:

a plurality of rollers;

a conveyor belt for conveying a record medium on a surface of the converor belt, the conveyor belt wrapped around the plurality of rollers;

a recessed portion formed in the surface of the conveyor belt such that ink moves towards at least one width end portion of the conveyor belt in accompaniment with the traveling of the conveyor belt; and

an ink retainer for retaining the ink moved in the recessed portion, the ink retainer disposed at the width end portion.

12. The belt conveying mechanism for an ink-jet recording apparatus according to claim 11, wherein the bottom surface of the recessed portion is water-repellent.

13. The belt conveying mechanism for an ink-jet recording apparatus according to claim 11, wherein the recessed portion is formed such that the ink moves towards both width ends of the conveyor belt in accompaniment with the traveling of the conveyor belt.

14. The belt conveying mechanism for an ink-jet recording apparatus according to claim 11, wherein the recessed portion has a stepped portion upstream in the conveyor belt traveling direction such that at least

one of the width end portions of the conveyor belt lies upstream in the traveling direction with respect to the width center of the conveyor belt.

15. The belt conveying mechanism for an ink-jet recording apparatus according to claim 14, wherein the stepped portion is formed such that the width end portions of the conveyor belt lie upstream in the traveling direction with respect to the width center of the conveyor belt.

16. The belt conveying mechanism for an ink-jet recording apparatus according to claim 11, wherein the recessed portion has a stepped portion upstream in the conveyor belt traveling direction such that the stepped portion is of an overhanging form whose upper end is oriented downstream of the traveling direction.

17. The belt conveying mechanism for an ink-jet recording apparatus according to claim 11, wherein the ink retainer selectively assumes a position at which it comes into contact with the conveyor belt or a position at which it does not come into contact with the conveyor belt.

18. A belt conveying mechanism for an ink-jet recording apparatus, comprising:

a plurality of rollers;

a conveyor belt for conveying a record medium on a surface of the converor belt, the conveyor belt wrapped around the plurality of rollers;

a recessed portion formed in the surface of the conveyor belt such that ink moves towards at least one width end portion of the conveyor belt in accompaniment with the traveling of the conveyor belt;

an ink retainer for retaining the ink moved in the recessed portion, the ink retainer disposed at the width end portion;

a sensor for detecting the position of the recessed portion formed in the conveyor belt; and

a drive mechanism that moves the ink retainer based on the position of the recessed portion detected by the sensor and on the traveling speed of the conveyor belt, such that the ink retainer comes into contact or does not come into contact with the conveyor belt.

19. An ink-jet recording apparatus, comprising:

the belt conveying mechanism according to claim 11; and

an ink-jet head for ejecting ink onto the record medium being conveyed by the conveyor belt of the belt conveyor.

20. A belt conveying mechanism for an ink-jet recording

apparatus, comprising:

a plurality of rollers;

a conveyor belt for conveying a record medium on a surface of the converor belt, the conveyor belt wrapped around the plurality of rollers;

a gas delivery member for delivering a gas in a direction intersecting the traveling direction of the conveyor belt along the surface of the conveyor belt from the delivery portion, the gas delivery member including a delivery portion disposed at one width-direction end of the conveyor belt; and

an ink retainer for retaining the ink moved under the action of the gas delivered from the gas delivery member, the ink retainer disposed at the other width-direction end of the conveyor belt, in such a manner as to face the delivery portion of the gas delivery member in the gas delivery direction.

21. The belt conveying mechanism for an ink-jet recording apparatus according to claim 20, wherein the gas delivery direction of the gas delivery member is slanted upstream in the traveling direction from a direction orthogonal to the traveling direction.

22. The belt conveying mechanism for an ink-jet recording apparatus according to claim 20, wherein the conveyor belt has on its surface a recessed portion

including a stepped portion substantially along the gas delivery direction of the gas delivery member.

23. The belt conveying mechanism for an ink-jet recording apparatus according to claim 20, wherein the bottom surface of the recessed portion is water-repellent.

24. An ink-jet recording apparatus, comprising:

the belt conveying mechanism according to claim 20; and

an ink-jet head for ejecting ink onto the record medium being conveyed by the conveyor belt of the belt conveyor.